

Striped Rubbernose Plecostomus (*Chaetostomus thomsoni*) Ecological Risk Screening Summary

U.S. Fish & Wildlife Service, April 2014
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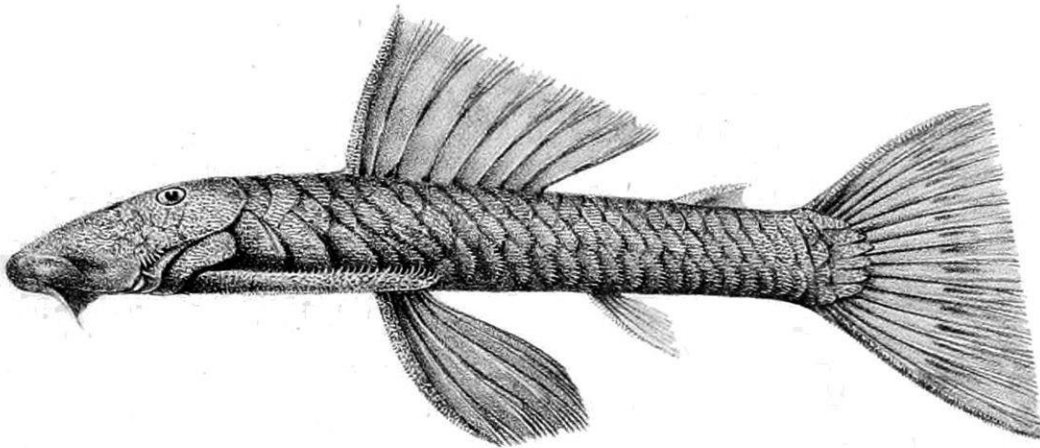


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https://commons.wikimedia.org/wiki/File:Chaetostoma_thomsoni.jpg. (April 1, 2014).

1 Native Range and Status in the United States

Native Range

From Froese and Pauly (2017):

“South America: Magdalena River basin in Colombia.”

Chaetostoma thomsoni is endemic to Colombia (Froese and Pauly 2017).

From Jimenez-Segura et al. (2016):

“This species endemic to Colombia is known from the Magdalena, Sinú, Cesar and Cauca basins (Maldonado-Ocampo et al. 2005). In the Santander Department, it has been reported from the rivers of Charalá, Oro, Chicamocha and Santacruz rivers and ravine El Aburrido, in the Lebrija

River system (Castellanos Morales et al. 2011). Its type locality is Río Negro, a tributary of the Magdalena River, Villeta, Cundinamarca (Regan 1904).”

Status in the United States

No records of *Chaetostoma thomsoni* in the wild or in trade United States were found.

Means of Introductions in the United States

No records of *Chaetostoma thomsoni* in the United States were found.

Remarks

No additional remarks.

2 Biology and Ecology

Taxonomic Hierarchy and Taxonomic Standing

According to Eschmeyer et al. (2017), *Chaetostoma thomsoni* Regan 1904 is the valid name for this species; it is also the original name.

From ITIS (2013):

“Kingdom Animalia
Subkingdom Bilateria
Infrakingdom Deuterostomia
Phylum Chordata
Subphylum Vertebrata
Infraphylum Gnathostomata
Superclass Osteichthyes
Class Actinopterygii
Subclass Neopterygii
Infraclass Teleostei
Superorder Ostariophysi
Order Siluriformes
Family Loricariidae
Subfamily Hypostominae
Genus *Chaetostoma*
Species *Chaetostoma thomsoni* Regan, 1904”

Size, Weight, and Age Range

From Froese and Pauly (2017):

“Max length : 10.1 cm TL male/unsexed; [Fisch-Muller 2003]”

Environment

From Froese and Pauly (2017):

“Freshwater; demersal. [...]; 20°C - 22°C [assumed to be recommended aquarium temperature] [Baensch and Riehl 1985]”

Climate/Range

From Froese and Pauly (2017):

“Tropical; [...]”

Jimenez-Segura et al. (2016) list 200m as a lower elevation limit and 1100m as an upper elevation limit.

Distribution Outside the United States

Native

From Froese and Pauly (2017):

“South America: Magdalena River basin in Colombia.”

Chaetostoma thomsoni is endemic to Colombia (Froese and Pauly 2017).

From Jimenez-Segura et al. (2016):

“This species endemic to Colombia is known from the Magdalena, Sinú, Cesar and Cauca basins (Maldonado-Ocampo et al. 2005). In the Santander Department, it has been reported from the rivers of Charalá, Oro, Chicamocha and Santacruz rivers and ravine El Aburrido, in the Lebrija River system (Castellanos Morales et al. 2011). Its type locality is Río Negro, a tributary of the Magdalena River, Villeta, Cundinamarca (Regan 1904).”

Introduced

No records of *Chaetostoma thomsoni* introductions were found.

Means of Introduction Outside the United States

No records of *Chaetostoma thomsoni* introductions were found.

Short Description

A description of *Chaetostoma thomsoni* was not available.

Biology

From Jimenez-Segura et al. (2016):

“It lives in the riverbed of rivers and creeks with fast current and moderate to abrupt slope and rocky bottom and periphytic vegetation. It feeds on algae (diatoms) and detritus. Its average fecundity is 108 oocytes (Zúñiga-Upegui 2005, Maldonado-Ocampo et al. 2005).”

Human Uses

From Jimenez-Segura et al. (2016):

“This species is fished by local communities for food consumption in the Magdalena-Cauca and Sinú basins (Lasso et al. 2011).”

Diseases

No records of OIE reportable diseases were found.

From Froese and Pauly (2017):

“Ichthyobodo Infection, Parasitic infestations (protozoa, worms, etc.)
Bacterial Infections (general), Bacterial diseases”

Threat to Humans

From Froese and Pauly (2017):

“Harmless”

3 Impacts of Introductions

No records of *Chaetostoma thomsoni* introductions were found.

4 Global Distribution



Figure 1. Known global distribution of *Chaetostoma thomsoni*. Locations are in Colombia and Venezuela. Map from GBIF Secretariat (2017).

5 Distribution Within the United States

No records of *Chaetostoma thomsoni* in the United States were found.

6 Climate Matching

Summary of Climate Matching Analysis

The climate match for *Chaetostoma thomsoni* was medium for southern parts of Florida, Texas, and small, localized areas of the West Coast. The match was low everywhere else. The Climate 6 score (Sanders et al. 2014; 16 climate variables; Euclidean distance) for the contiguous United States was 0.001, low, and no states had individually high climate matches.

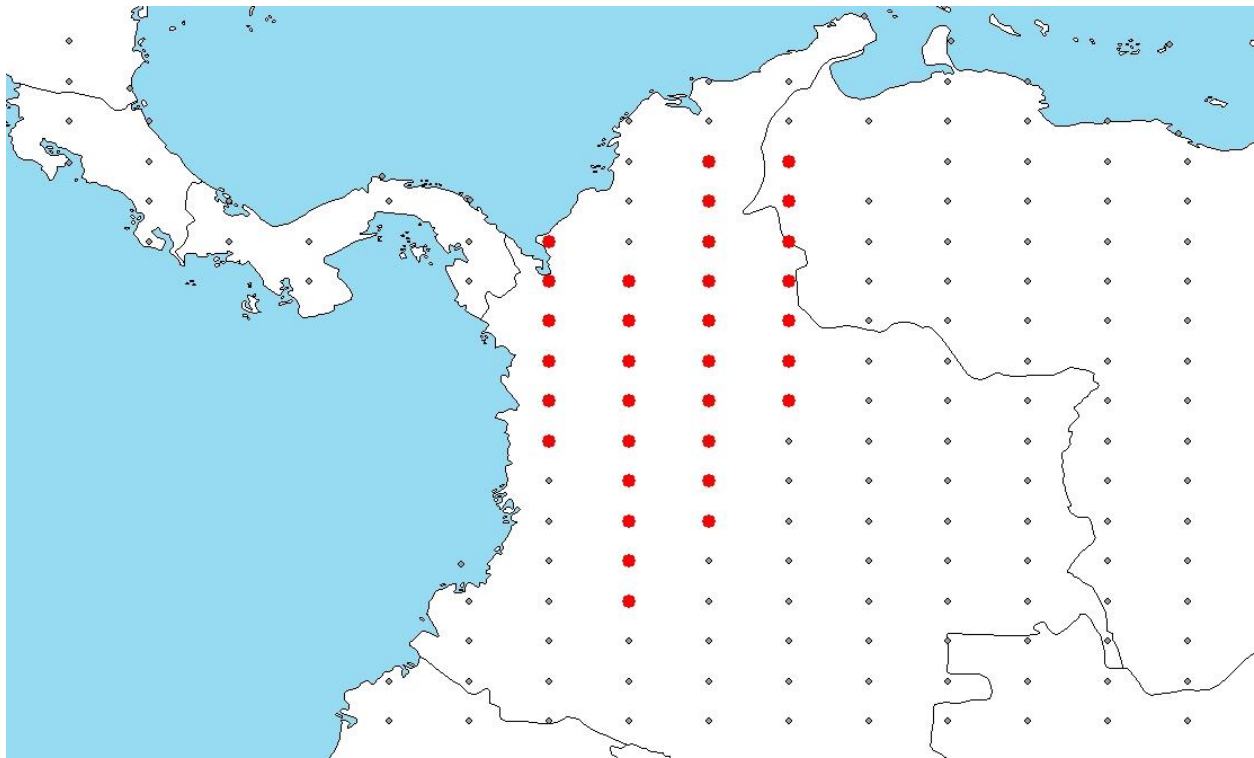


Figure 2. RAMP (Sanders et al. 2014) source map showing weather stations in northern South America selected as source locations (red; Venezuela, Colombia) and non-source locations (gray) for *Chaetostoma thomsoni* climate matching. Source locations from GBIF Secretariat (2017).

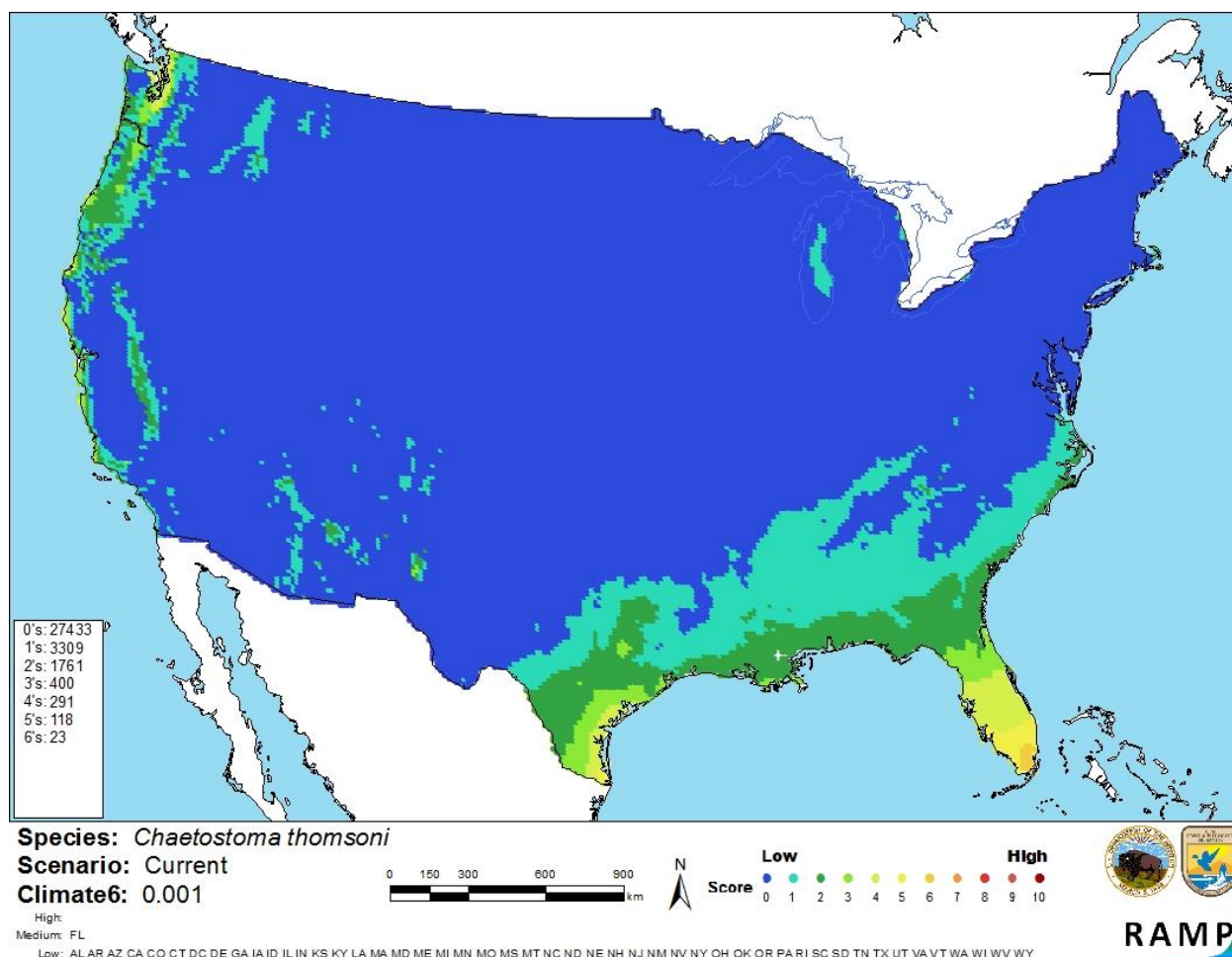


Figure 3. Map of RAMP (Sanders et al. 2014) climate matches for *Chaetostoma thomsoni* in the contiguous United States based on source locations reported by GBIF Secretariat (2017). 0 = Lowest match, 10 = Highest match. Counts of climate match scores are tabulated on the left.

The High, Medium, and Low Climate match Categories are based on the following table:

Climate 6: Proportion of (Sum of Climate Scores 6-10) / (Sum of total Climate Scores)	Climate Match Category
$0.000 \leq X \leq 0.005$	Low
$0.005 < X < 0.103$	Medium
≥ 0.103	High

7 Certainty of Assessment

The certainty of this assessment is low. Minimal information was available for *Chaetostoma thomsoni*. No records of introduction were found.

8 Risk Assessment

Summary of Risk to the Contiguous United States

The Striped Rubbernose Plecostomus (*Chaetostoma thomsoni*) is a species of armored catfish native to rivers in northern South America. The history of invasiveness for *C. thomsoni* is uncertain. No records of introductions were found. The climate match is low; the climate 6 score was 0.001. The certainty of assessment is low. There was minimal information available for *C. thomsoni*. The overall risk assessment category is uncertain.

Assessment Elements

- **History of Invasiveness (Sec. 3): Uncertain**
- **Climate Match (Sec. 6): Low**
- **Certainty of Assessment (Sec. 7): Low**
- **Remarks/Important additional information** No additional remarks.
- **Overall Risk Assessment Category: Uncertain**

9 References

Note: The following references were accessed for this ERSS. References cited within quoted text but not accessed are included below in Section 10.

- Eschmeyer, W. N., R. Fricke, and R. van der Laan, editors. 2017. Catalog of fishes: genera, species, references. Available: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>. (November 2017).
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- GBIF Secretariat. 2017. GBIF backbone taxonomy: *Chaetostoma thomsoni* Regan, 1904. Global Biodiversity Information Facility, Copenhagen. Available: <http://www.gbif.org/species/5202361>. (January 2016).
- ITIS (Integrated Taxonomic Information System). 2013. *Chaetostoma thomsoni* Regan, 1904. Integrated Taxonomic Information System, Reston, Virginia. Available: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=680079. (April 2014).
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- Sanders, S., C. Castiglione, and M. Hoff. 2014. Risk Assessment Mapping Program: RAMP. U.S. Fish and Wildlife Service.

10 References Quoted But Not Accessed

Note: The following references are cited within quoted text within this ERSS, but were not accessed for its preparation. They are included here to provide the reader with more information.

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Lasso, C. A., F. de Paula Gutiérrez, M. A. Morales-Betancourt, E. Aguadelo Córdoba, H. Ramírez-Gil, and R. E. Ajiaco Martínez, editors. 2011. II. *Pesquerías continentales de Colombia: cuencas del Magdalena-Cauca, Sinú, Canalete, Atrato, Orinoco, Amazonas y vertiente del Pacífico.* Instituto de Investigación de los Recursos Biológicos Alexander von Humboldt, Bogotá, Colombia.

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Regan, C. T. 1904. A monograph of the fishes of the family Loricariidae. *Transactions of the Zoological Society of London* 17(3-1):191–350.

Zúñiga-Upegui, P. T. 2005. *Diversidad, distribución y algunos aspectos ecológicos de la familia Loricariidae (Ostariophysi: Siluriformes) en la cuenca del río Coello – Tolima (Colombia).* Trabajo de Grado. Programa de Biología Facultad de Ciencias, Universidad del Tolima.